

REMARKS

Claims 27, 33, 34, 37, 39-41 have been rejected under 35 USC §103(a) as being unpatentable over Hyder in view of Williams. The rejection of the remaining claims also depends upon the combination of Hyder and Williams. Claims 35 and 36 were rejected under 35 USC §103(a) as being unpatentable over Hyder in view of Williams, in view of Garney. Claims 28-32 and 38 were rejected under 35 USC §103(a) as being unpatentable over Hyder in view of Williams and further in view of Applicant admitted prior art (AAPA) and further in view of Garney. Reliance upon Williams is misplaced. Williams fails to provide any teachings or suggestions for use with a layered stack of device drivers. Williams provides no teaching whatsoever of unbinding a driver from a stack.

Williams relates instead to routers. Adaptors are bound to NWLINK. If only one adaptor is bound to NWLINK then routing cannot take place. When the number of adaptors bound to NWLINK equals two or more "then the computer PC2 has become capable of routing for the first time as a result of the binding of a new adaptor to the computer PC2." (Column 10, lines 1-4). "A Bound Adaptor Counter 32 contains the numbers of adaptors currently bound to the NWLINK 14." (Column 8, lines 22-23). The adaptors that are bound to NWLINK are not layered in a stack. Routing can be accomplished from any bound adaptor to any other bound adaptor. There is no structured hierarchy to put these adaptors into a stack where order is relevant. Indeed, if an adaptor is removed causing a gap in the table of adaptor entries, "then the last entry in the table is moved into the open slot in the Bound Adaptors Table 30." (column 11, lines 11-13). The routing systems taught by Williams merely provide a table of adaptors that are bound to NWLINK. As is recognized by the disregard for ordering the adaptors when one is removed, the order of the adaptors in the table is not relevant to the routing. These adaptors are not layered drivers and they are not in a stack. Williams merely provides a table of adaptors rearranging the adaptors to avoid gaps in the table. There is no mention in Williams of a stack nor is there any indication of a hierarchical relationship among the adaptors in a table.

Whereas claim 27 calls for “unbinding an upper driver in the stack from a lower driver in the stack,” Williams does not disclose a stack nor two drivers related as upper driver and lower driver. Furthermore, Williams does not unbind one driver from another. In the routing system of Williams, adaptors are bound to NWLINK. While an adaptor can be unbound from NWLINK, there is no teaching or suggestion in Williams that relates to the entirely different computer environment of Applicant’s invention for a layered stack of device drivers. The Examiner concedes that Hyder does not disclose unbinding an upper driver in the stack from a lower driver in the stack. Williams is a non-analogous reference which cannot be combined with Hyder and, in any case, fails to disclose unbinding an upper driver in the stack from a lower driver in the stack. For these reasons, all claims in the application are patentable over the art of record.

The Examiner further concedes that Hyder does not recite dynamically adding a device driver into a layered stack of device drivers. While Williams relates to dynamically reconfiguring adaptors in a routing system, it provides absolutely no suggestion that relates to layered stacks of device drivers in which upper drivers are bound to lower drivers.

The invention of claim 27 is directed to adding a device driver to a layered stack. Because the invention deals with a stack and Williams does not, in the invention of claim 27 unbinding an upper driver in the stack is required as an element in the method for adding a device driver. In the routing system of Williams if an adaptor is to be bound to NWLINK, there is no need for unbinding nor is there a need to suspend and restart IO operations.

A person skilled in the art would have no motivation to look to Williams’ routing system for how to dynamically add device drivers to a layered stack. “In determining the relevant art...one looks to the nature of the problem confronting the inventor.” *Orthopedic Equipment Co., Inc. v. United States*, 217 USPQ 193, 196 (Fed. Cir. 1983). The problems faced by applicants relate to dealing with a layered stack. While suggesting that dynamic reconfigurability is a nice feature in computing, Williams fails to address any of the problems of providing dynamic reconfigurability in a layered stack. “Under Section 103, teachings of

references can be combined only if there is some suggestion or incentive to do so.” ACS *Hospital Systems, Inc. v. The Montefiore Hospital*, 221 USPQ 929, 933 (Fed. Cir. 1984).

Applicants submit there is no incentive to combine the layered driver system of Hyder with the routing system of Williams. Even if these two patents could be combined, several elements of the claim as discussed above are missing from both references. For these reasons, claim 27 and all claims depending therefrom should be allowed.

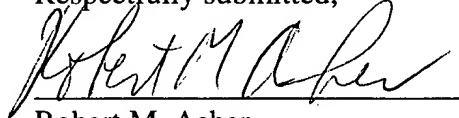
With regard to claim 37, Hyder does not disclose dynamically removing a device driver from a layered stack of device drivers. Claim 37, in performing this method, requires unbinding an upper driver in a stack from the device driver being removed. The Examiner concedes that Hyder fails to disclose this unbinding act in Hyder. The Williams routing system is a non-analogous art relative to the layered driver system of Hyder. Also, Williams fails to disclose unbinding an upper driver in a stack from a device driver being removed from the stack. In the routing system of Williams an adaptor can be unbound from NWLINK. But there is no stack so there is no need for unbinding an upper driver from the device driver being removed. Indeed, there are two unbinding acts required in claim 37, unbinding the upper driver in the stack from the device driver and unbinding the device driver from a lower driver. These acts are neither taught by Hyder nor Williams in connection with dynamically removing device drivers from layered stacks. For all of the reasons set forth above with regard to claim 37 and for these additional reasons, claim 37 and all claims depending therefrom are allowable over Hyder and Williams. Williams is simply inapplicable to Applicant's invention.

The arguments set forth above similarly apply to claims 40 and 41. A rejection based on Hyder was overcome by the amendment under Rule 116 filed September 5, 2003. The new citation of Williams fails to satisfy the deficiencies of Hyder. Williams is entirely inapplicable to Applicants' invention and fails to disclose the elements of the claim missing from Hyder. The combination is improper and even if the two references are combined, they fail to disclose all of the elements of the claims pending in the application. For these reasons all claims in the application are believed allowable over the art of record.

Claims 35, 36 and 28-32 depend from claim 27. Claim 38 depends from claim 37. The Examiner cites the additional reference Garney merely for the purpose of teaching a driver name and first and second key. There is no suggestions that Garney satisfies the deficiencies of Hyder set forth above. For these reasons, claims 35, 36, 28-32 and 38 are allowable.

For the foregoing reasons, all claims presently in the application are patentable over the art of record and early notice to that effect is respectfully solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Robert M. Asher", written over a horizontal line.

Robert M. Asher

Reg. No. 30,445

Bromberg & Sunstein LLP

125 Summer Street, 11th Floor

Boston, MA 02110-1618

(617) 443-9292

Attorney for Applicants